# Chapter X01

## **Mathematical Constants**

### Contents

1	Scope of the Chapter	2
2	Background to the Problems	2
3	Recommendations on Choice and Use of Available Routines	2
4	Routines Withdrawn or Scheduled for Withdrawal	2

[NP3390/19/pdf] X01.1

#### 1 Scope of the Chapter

This chapter is concerned with the provision of mathematical constants required by other routines within the Library.

It should be noted that because of the trivial nature of the routines individual routine documents are not provided.

### 2 Background to the Problems

Some Library routines require mathematical constants to maximum *machine precision*. These routines call Chapter X01 and thus lessen the number of changes that have to be made between different implementations of the Library.

#### 3 Recommendations on Choice and Use of Available Routines

Note. Refer to the Users' Note for your implementation to check that a routine is available.

Although these routines are primarily intended for use by other routines they may be accessed directly by the user:

 $\begin{array}{ccc} \textbf{Constant} & & \textbf{Fortran Specification} \\ \pi & & real \ \texttt{FUNCTION} \ \texttt{XO1AAF(X)} \end{array}$ 

real X

 $\gamma$  (Euler's constant) real FUNCTION X01ABF(X)

real X

The parameter X of these routines is a dummy parameter.

#### 4 Routines Withdrawn or Scheduled for Withdrawal

None since Mark 13.

X01.2 (last) [NP3390/19/pdf]